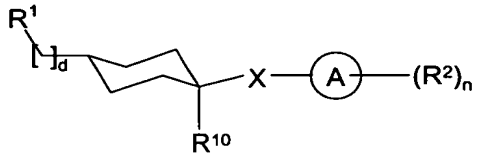
Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (Original) A compound of formula (I)



(I)

or a pharmaceutically acceptable salt, solvate, or derivative thereof, wherein:

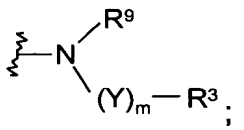
X is a C_{1-5} alkylene chain, wherein said X is optionally substituted by one or more =O, =S, $-S(O)_t-$, alkyl, or halogen and wherein said C_{1-5} alkylene chain may optionally have 0-3 heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen;

Ring A is a saturated, partially saturated or aromatic 3-7 monocyclic or 8-10 membered bicyclic ring having one ring nitrogen and 0-4 additional heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen;

R^1 is selected from the group consisting of

(a) a saturated, partially saturated, or aromatic 4-7 monocyclic or 8-10 membered bicyclic ring having one ring nitrogen and 0-4 additional heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen, optionally attached through a C_{1-6} alkylene chain, and optionally substituted by one or more R^8;

(b)



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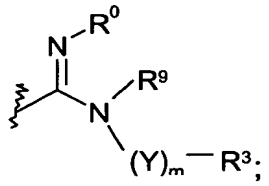
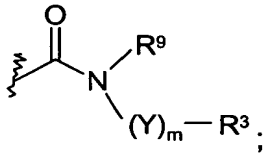
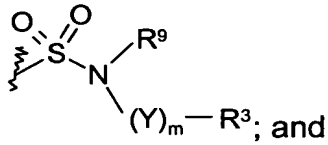
(c)



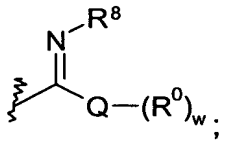
(d)





(e)

(f)



Q is carbon, oxygen, or $-S(O)_t$;

w is 1 or 2;

each R^2 is independently selected from $-OR^0$, $-C(O)-R^0$, $-S(O)_2-R^0$, $-C(O)-N(R^0)_2$, $-S(O)_2-N(R^0)_2$, $-(CH_2)_a-N(R^0)(-V_b-R^+)$, $-(CH_2)_a-(-V_b-R^+)$, halogen, alkyl optionally substituted by one or more R^7, alkenyl optionally substituted by one or more R^7, alkynyl optionally substituted by one or more R^7, aryl optionally substituted by one or more R^6, heteroaryl optionally substituted by one or more R^6, cycloalkyl optionally substituted by one or more R^8, and heterocyclyl optionally substituted by one or more R^8; and two adjacent R^2s on Ring A are optionally taken together to form a fused, saturated, partially saturated or aromatic 5-6 membered ring having 0-3 heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen; or two geminal R^2s are optionally taken together to form a spiro, saturated, partially saturated or aromatic 5-6 membered ring having 0-3 heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen, said fused or spiro ring being optionally substituted by one or more R^8;

a is 0-3;

b is 0 or 1;

V is -C(O)-, -C(O)O-, -$S(O)_2$-, or -C(O)-N(R^o)-;

R^+ is alkyl, cycloalkyl, aralkyl, aryl, heteroaryl, heteroaralkyl, or heterocyclyl, wherein said R^+ is optionally substituted by one or more R^8;

d is 0-1;

m is 0 or 1;

n is 0-5;

each R^3 independently is -H, -N(R^o)$_2$, -N(R^0)C(O)R^0, -CN, halogen, -CF_3, alkyl optionally substituted by one or more groups selected from R^7 or -S-aryl optionally substituted by -$(CH_2)_{1-6}$-N(R^0)SO_2(R^0), alkenyl optionally substituted by one or more groups selected from R^7 or -S-aryl optionally substituted by -$(CH_2)_{1-6}$-N(R^0)SO_2(R^0), alkynyl optionally substituted by one or more groups selected from R^7 or -S-aryl optionally substituted by -$(CH_2)_{1-6}$-N(R^0)SO_2(R^0), cycloalkyl or carbocyclyl optionally substituted by one or more R^8, aryl optionally substituted by one or more R^6, heteroaryl optionally substituted by one or more R^6, or heterocyclyl optionally substituted by one or more R^8;

Y is alkyl, alkenyl, alkynyl, -$(CR^4R^5)_p$-, -C(O)-, -C(O)C(O)-, -C(S)-, -O-$(CH_2)_{0-4}$-C(O)-, -$(CH_2)_{0-4}$-C(O)-O-, -N(R^0)-C(O)-, -C(O)-N(R^0)-, -N(R^0)-C(S)-, -$S(O)_t$-, -O-C(=N-CN)-, -O-C(=N-R^0)-, -C(=N-CN)-O-, -C(=N-CN)-S-, -C(=N-R^0)-O-,

-S-C(=N-CN)-, -N(R^0)-C(=N-CN)-, -C(=N-CN)-, -N(R^0)-C[=N-C(O)-R^0]-, -N(R^0)-C[=N-$S(O)_t$-R^0]-, -N(R^0)-C(=N-OR^0)-, -N(R^0)-C(=N-R^0)-, or -C(=N-R^0)-;

each R^4 independently is H or alkyl optionally substituted by R^7, alkenyl optionally substituted by R^7, alkynyl optionally substituted by R^7;

each R^5 independently is selected from -H, -C(O)-OR^6, -C(O)-N(R^0)$_2$, -$S(O)_2$-N(R^0)$_2$, -$S(O)_2$-R^6, aryl optionally substituted by R^6, or heteroaryl optionally substituted by R^6;

p is 1-5;

each t independently is 1 or 2;

each R^6 is independently selected from the group consisting of halogen, -CF_3, -OCF_3, -OR^0, -$(CH_2)_{1-6}$-OR^0, -SR^0, -$(CH_2)_{1-6}$-SR^0, -SCF_3, -R^0, methylenedioxy, ethylenedioxy, -NO_2, -CN, -$(CH_2)_{1-6}$-CN, -N(R^0)$_2$, -$(CH_2)_{1-6}$-N(R^0)$_2$, -NR^0C(O)R^0, -NR^0(CN), -NR^0C(O)N(R^0)$_2$, -NR^0C(S)N(R^0)$_2$, -N$R^0$$CO_2$$R^0$, -N$R^0NR^0$C(O)$R^0$,

$-NR^0NR^0C(O)N(R^0)_2$, $-NR^0NR^0CO_2R^0$, $-C(O)C(O)R^0$, $-C(O)CH_2C(O)R^0$, $-(CH_2)_{0-6}CO_2R^0$, $-O-C(O)R^0$, $-C(O)R^0$, $-C(O)N(R^0)N(R^0)_2$, $-C(O)N(R^0)_2$, $-C(O)N(R^0)OH$, $-C(O)N(R^0)SO_2R^0$, $-OC(O)N(R^0)_2$, $-S(O)_tR^0$, $-S(O)_t-OR^0$, $-S(O)_tN(R^0)C(O)R^0$, $-S(O)_tN(R^0)OR^0$, $-NR^0SO_2N(R^0)_2$, $-NR^0SO_2R^0$, $-C(=S)N(R^0)_2$, $-C(=NH)-N(R^0)_2$, $-(CH_2)_{1-6}-C(O)R^0$, $-C(=N-OR^0)-N(R^0)_2$, $-O-(CH_2)_{0-6}-SO_2N(R^0)_2$, $-(CH_2)_{1-6}NHC(O)R^0$, and $-SO_2N(R^0)_2$ wherein the two R^0s on the same nitrogen are optionally taken together to form a 5-8 membered saturated, partially saturated, or aromatic ring having additional 0-4 heteroatoms selected from oxygen, phosphorus, nitrogen, or sulfur;

each R^7 is independently selected from halogen, $-CF_3$, $-R^0$, $-OR^0$, $-OCF_3$, $-(CH_2)_{1-6}-OR^0$, $-SR^0$, $-SCF_3$, $-(CH_2)_{1-6}-SR^0$, aryl optionally substituted by $-R^6$, methylenedioxy, ethylenedioxy, $-NO_2$, $-CN$, $-(CH_2)_{1-6}-CN$, $-N(R^0)_2$, $-(CH_2)_{1-6}-N(R^0)_2$, $-NR^0C(O)R^0$, $-NR^0$ (CN), $-NR^0C(O)N(R^0)_2$, $-N(R^0)C(S)N(R^0)_2$, $-NR^0CO_2R^0$, $-NR^0NR^0C(O)R^0$, $-NR^0NR^0C(O)N(R^0)_2$, $-NR^0NR^0CO_2R^0$, $-C(O)C(O)R^0$, $-C(O)CH_2C(O)R^0$, $-(CH_2)_{0-6}-CO_2R^0$, $-C(O)R^0$, $-C(O)N(R^0)N(R^0)_2$, $-C(O)N(R^0)_2$, $-C(O)N(R^0)OH$, $-OC(O)R^0$, $-C(O)N(R^0)SO_2R^0$, $-OC(O)N(R^0)_2$, $-S(O)_tR^0$, $-S(O)_t-OR^0$, $-S(O)_tN(R^0)C(O)R^0$, $-S(O)_tN(R^0)OR^0$, $-NR^0SO_2N(R^0)_2$, $-NR^0SO_2R^0$, $-C(=S)N(R^0)_2$, $-C(=NH)-N(R^0)_2$, $-(CH_2)_{1-6}-C(O)R^0$, $-C(=N-OR^0)-N(R^0)_2$, $-O-(CH_2)_{0-6}-SO_2N(R^0)_2$, $-(CH_2)_{1-6}-NHC(O)R^0$, and $-SO_2N(R^0)_2$ wherein the two R^0s on the same nitrogen are optionally taken together to form a 5-8 membered saturated, partially saturated, or aromatic ring having additional 0-4 heteroatoms selected from oxygen, phosphorus, nitrogen, or sulfur;

each R^8 independently is selected from the group consisting of R^7, =O, =S, $=N(R^0)$, and =N(CN);

R^9 is hydrogen, alkyl optionally substituted by one or more R^7, alkenyl optionally substituted by one or more R^7, alkynyl optionally substituted by one or more R^7, cycloalkyl optionally substituted by one or more R^8, heterocyclyl optionally substituted by one or more R^8, heteroaryl optionally substituted by one or more R^6, or aryl optionally substituted by one or more R^6; or

$-(Y)_m-R^3$ and R^9 may combine with the nitrogen atom with which they are attached to form a saturated, partially saturated, or aromatic 5-7 membered

monocyclic or 8-10 membered bicyclic ring that optionally contains 1 to 3 additional heteroatoms selected oxygen, phosphorus, sulfur, or nitrogen, wherein said ring may be optionally substituted with one or more R^8;
R^{10} is hydrogen, alkyl optionally substituted by one or more R^7, alkenyl optionally substituted by one or more R^7, alkynyl optionally substituted by one or more R^7, cycloalkyl optionally substituted by one or more R^8, heterocyclyl optionally substituted by one or more R^8, heteroaryl optionally substituted by one or more R^6, or aryl optionally substituted by one or more R^6;

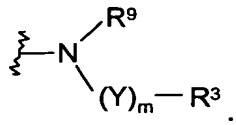
each R^0 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, carbocyclylalkyl, aryl, heteroaryl, aralkyl, heteroaralkyl, heterocyclyl, and heterocyclylalkyl, wherein each member of R^0 except H is optionally substituted by one or more R*, -OR*, $N(R^*)_2$, =O, =S, halogen, $-CF_3$,
$-NO_2$, -CN, -C(O)R*, $-CO_2R^*$, -C(O)-aryl, -C(O)-heteroaryl, aralkyl, $-S(O)_t$-aryl, $-S(O)_t$-heteroaryl, $-NR^*SO_2R^*$, $-NR^*C(O)R^*$, $-NR^*C(O)N(R^*)_2$, $-N(R^*)C(S)N(R^*)_2$,
$-NR^*CO_2R^*$, $-NR^*NR^*C(O)R^*$, $-NR^*NR^*C(O)N(R^*)_2$, $-NR^*NR^*CO_2R^*$, $-C(O)C(O)R^*$, $-C(O)CH_2C(O)R^*$, $-C(O)N(R^*)N(R^*)_2$, $-C(O)N(R^*)_2$, $-C(O)NR^*SO_2R^*$, $-OC(O)N(R^*)_2$, $-S(O)_tR^*$, $-NR^*SO_2N(R^*)_2$, and $-SO_2N(R^*)_2$ wherein the two R*s on the same nitrogen are optionally taken together to form a 5-8 membered saturated, partially saturated or aromatic ring having additional 0-4 heteroatoms selected from oxygen, phosphorus, nitrogen or sulfur; and

each R* is independently H, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, or heteroaryl.

2. (Original) The compound of claim 1 wherein R^{10} is optionally substituted aryl.

3. (Original) The compound of claim 2 wherein R^{10} is optionally substituted phenyl.

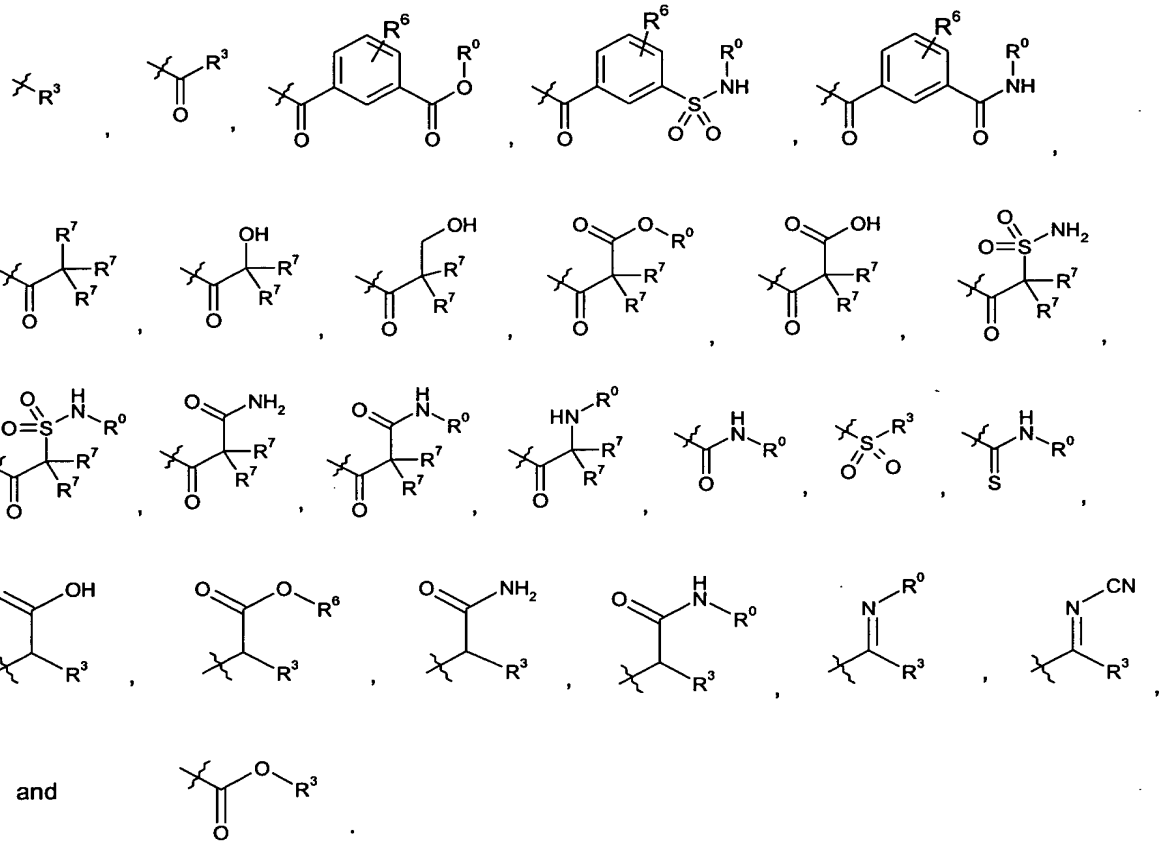
4. (Original) The compound of claim 1 wherein R^1 is



5. (Original) The compound of claim 4 where R^9 is alkyl.

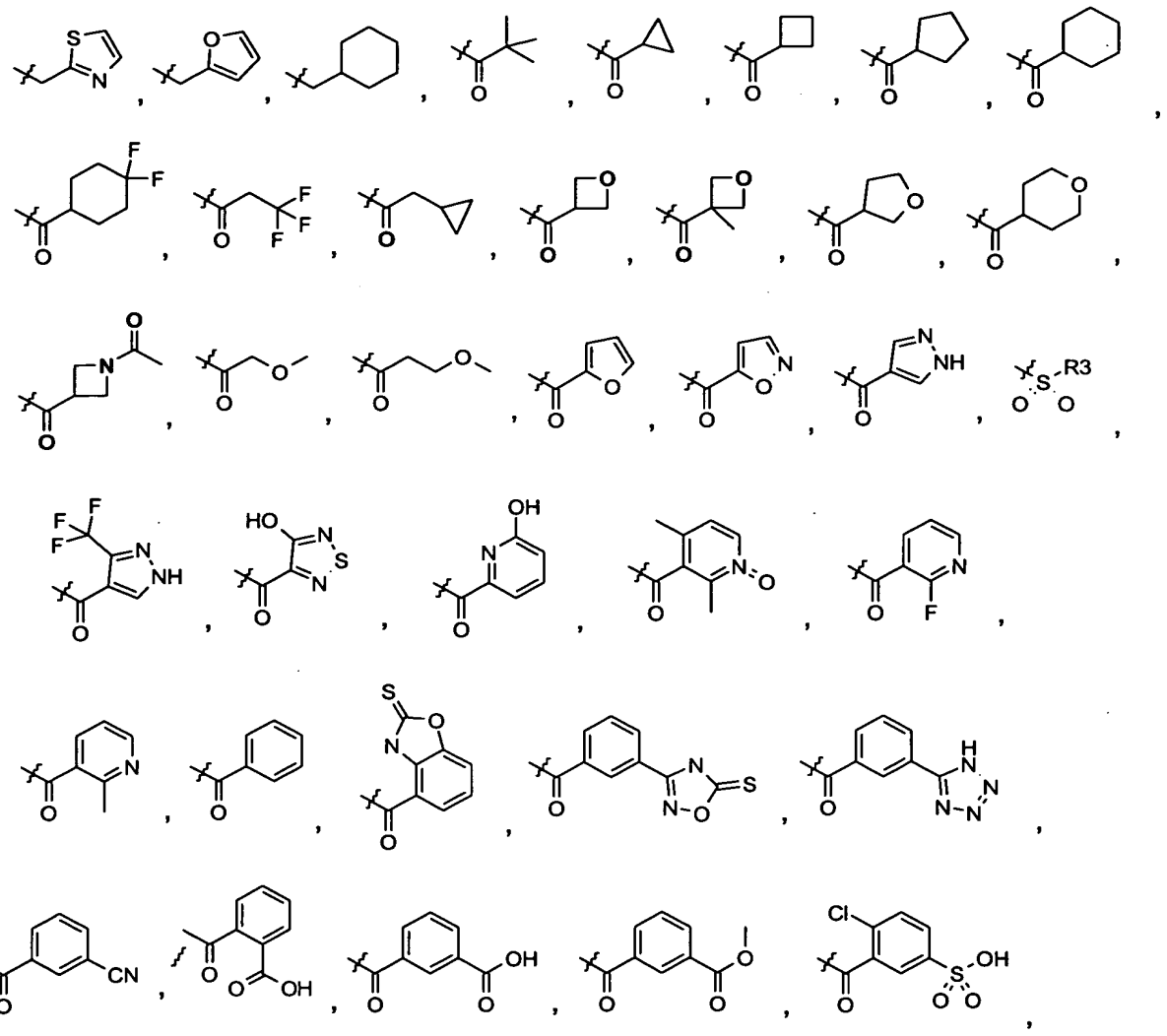
6. (Original) The compound of claim 5 wherein R^9 is methyl.

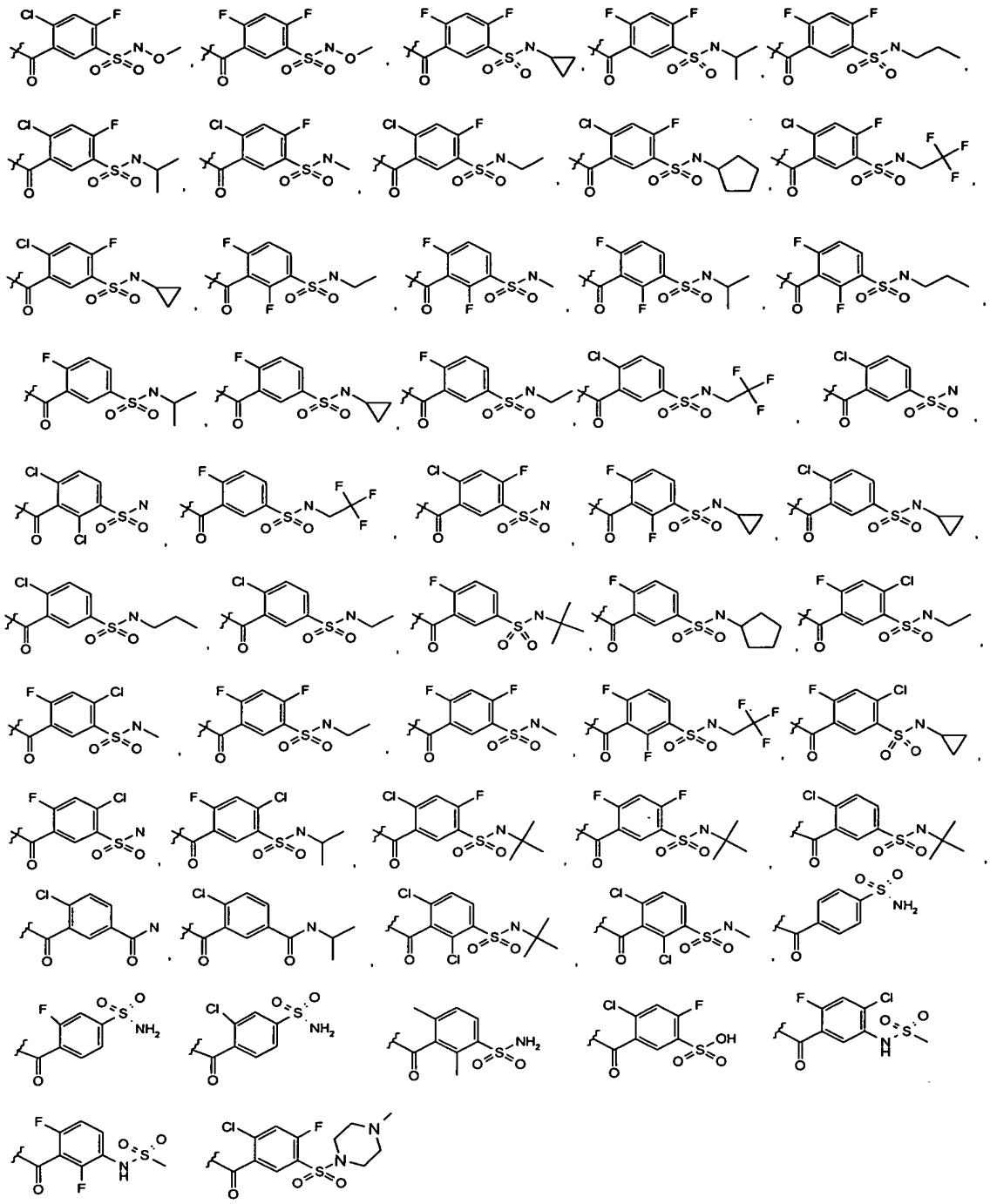
7. (Original) The compound of claim 4 wherein $-(Y)_m-R^3$ is selected from the group consisting of

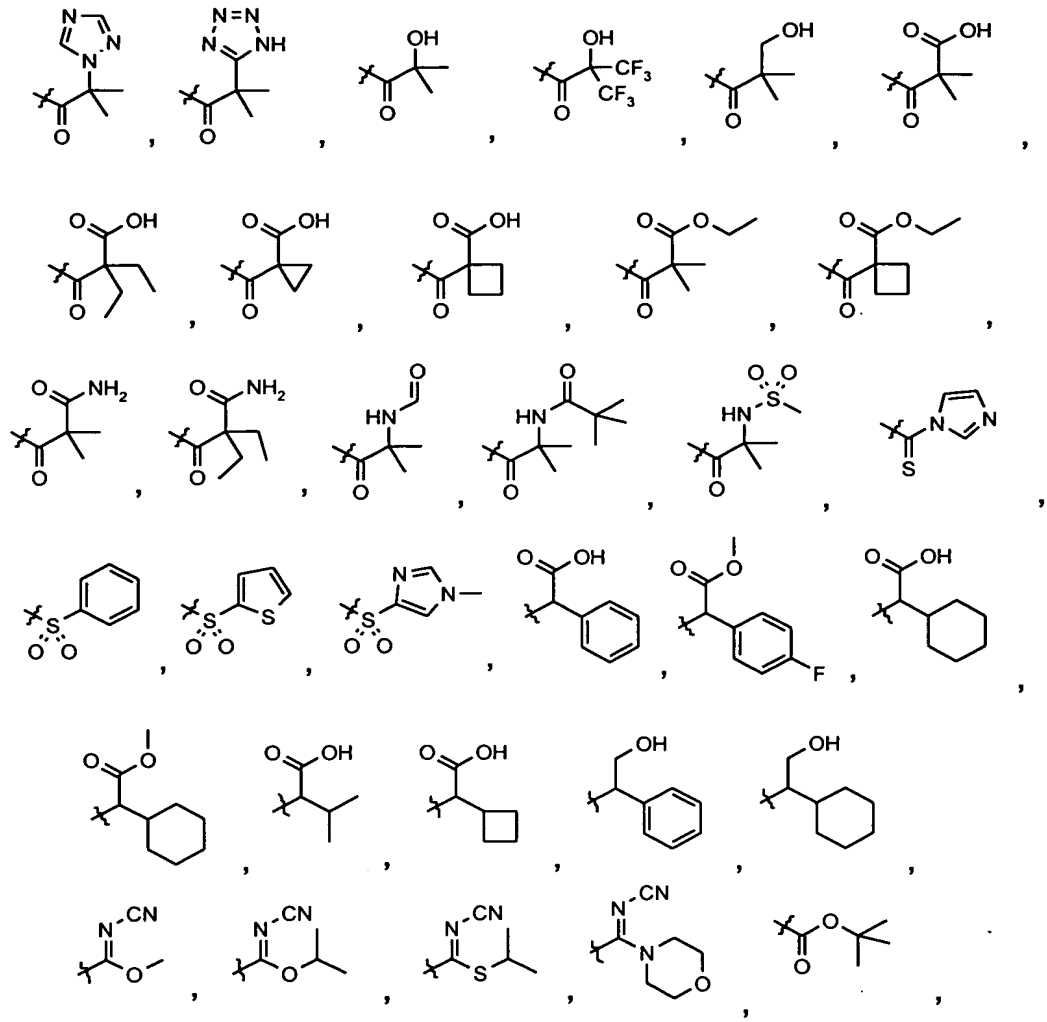


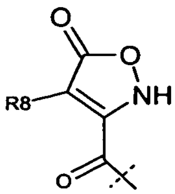
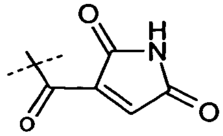
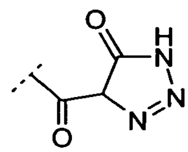
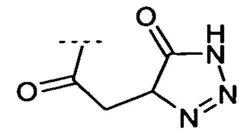
and

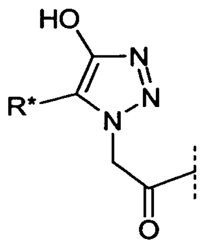
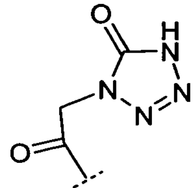
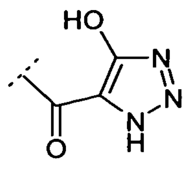
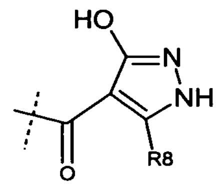
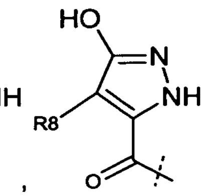
8. (Original) The compound of claim 4 wherein $-(Y)_m-R^3$ is selected from the group consisting of

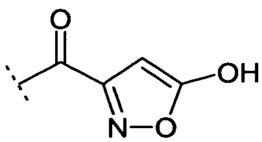
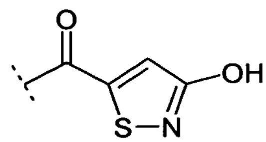
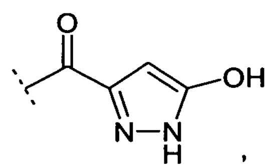
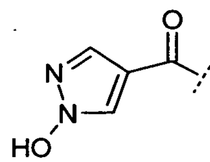


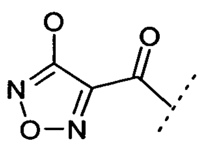
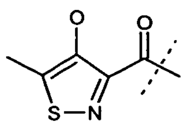
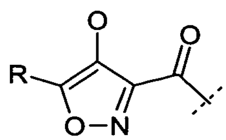
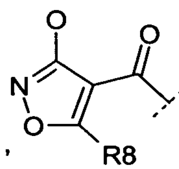
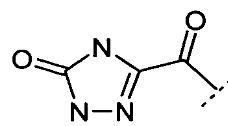


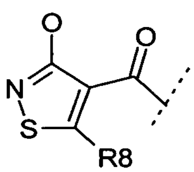
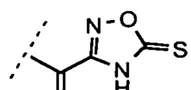
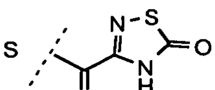
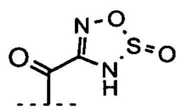
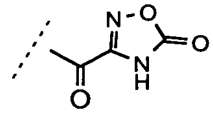


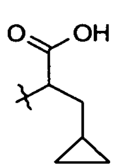
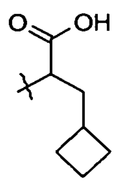
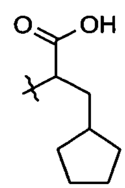
 ,  ,  ,  ,

 ,  ,  ,  ,  ,

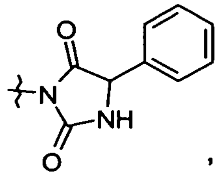
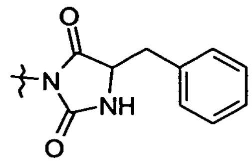
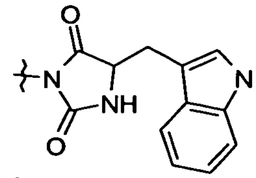
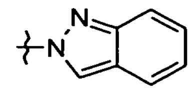
 ,  ,  ,  ,

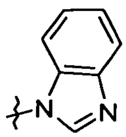
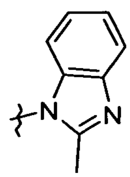
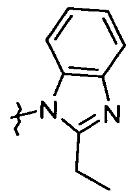
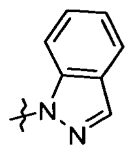
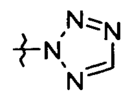
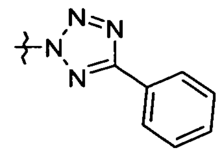
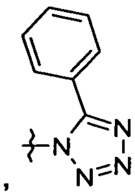
 ,  ,  ,  ,  ,

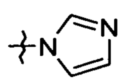
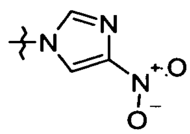
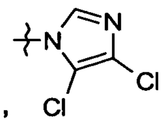
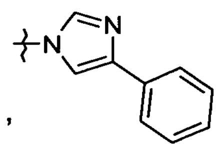
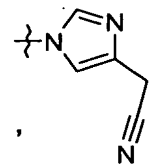
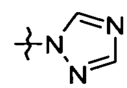
 ,  ,  ,  ,  ,

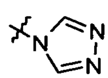
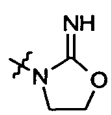
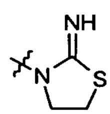
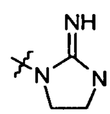
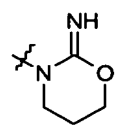
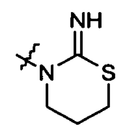
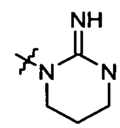
 ,  and  .

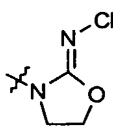
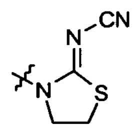
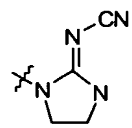
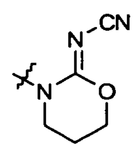
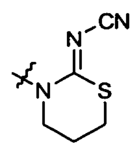
9. (Original) The compound of claim 4 wherein $-(Y)_mR^3$ and $-R^9$ combine with the nitrogen atom to which they are attached to form

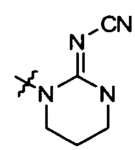
 ,  ,  ,  ,

 ,  ,  ,  ,  ,  ,  ,

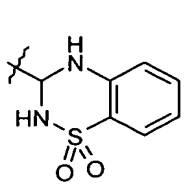
 ,  ,  ,  ,  ,  ,

 ,  ,  ,  ,  ,  ,  ,

 ,  ,  ,  ,  ,

and  .

10. (Currently Amended) The compound of claim 1 wherein R^1 is selected from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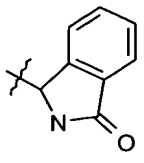
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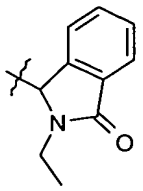
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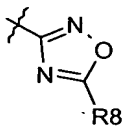
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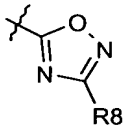
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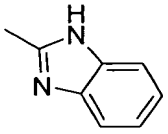
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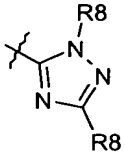
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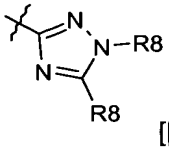
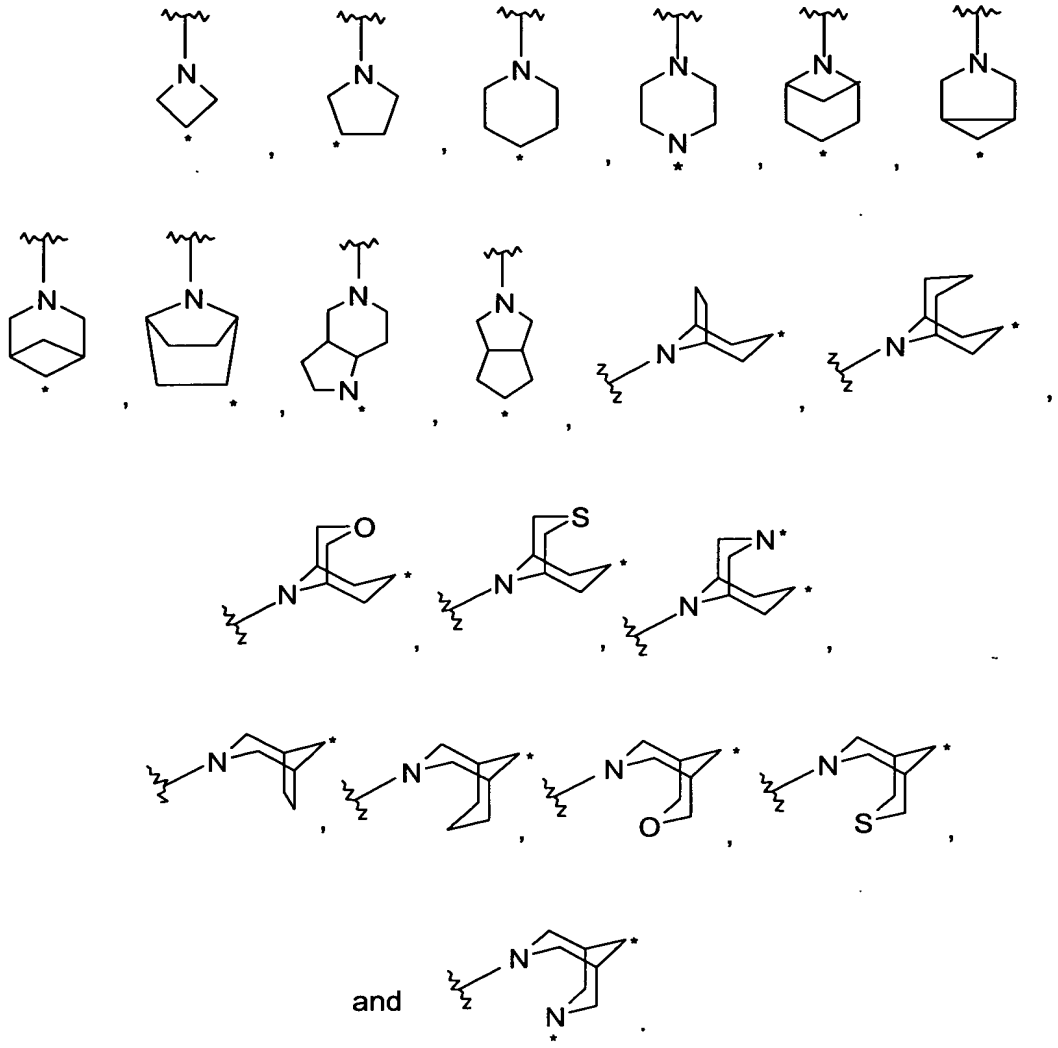

[[,]] .

11. (Original) The compound of claim 1 wherein X is $-(CH_2)-$, $-(CH_2-CH_2)-$, or $-(CH_2-CH_2-CH_2)-$.

12. (Original) The compound of claim 9 wherein X is optionally substituted by one or more halogen or oxo.

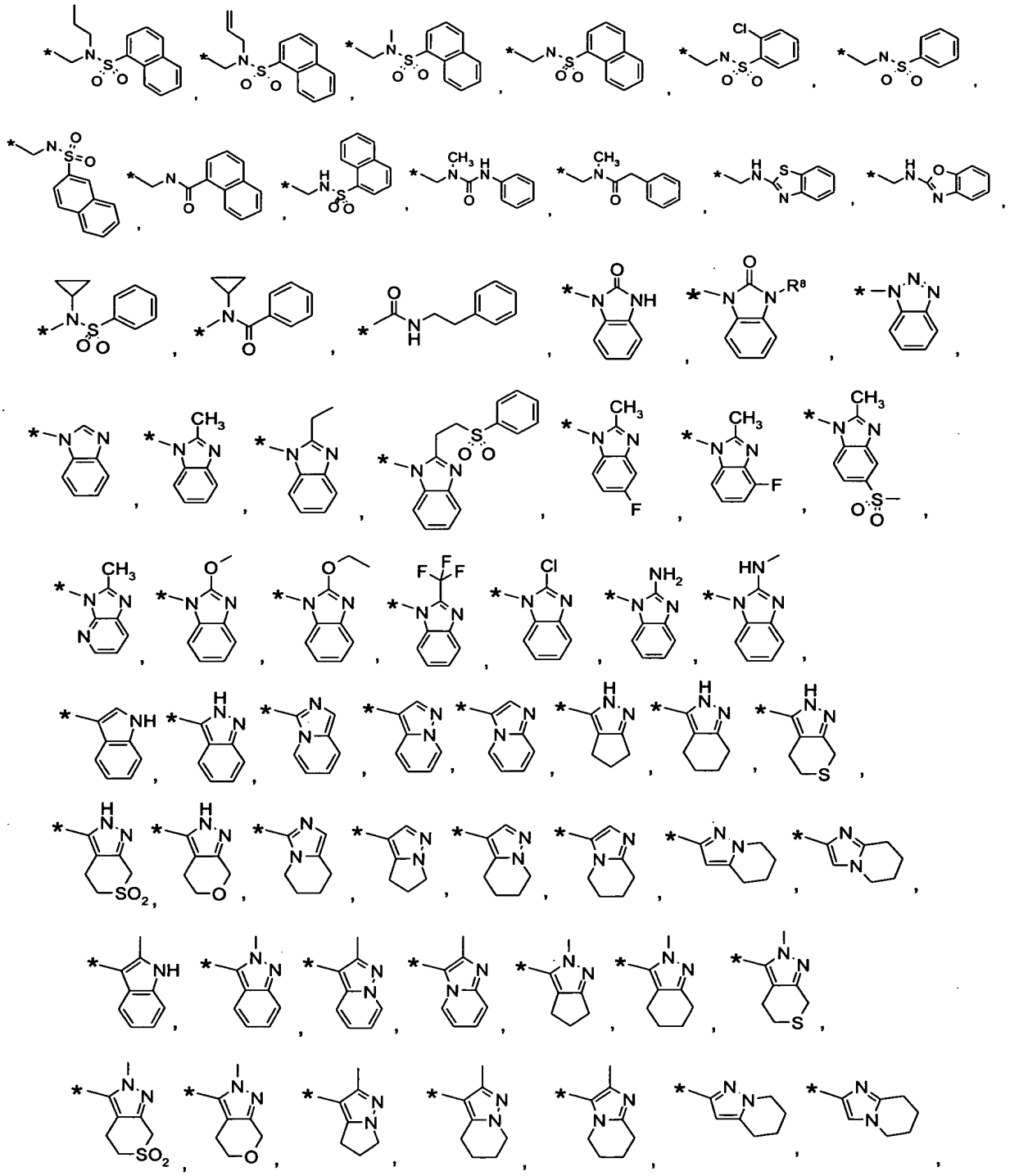
13. (Original) The compound of claim 9 wherein X optionally has 1-3 heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen.

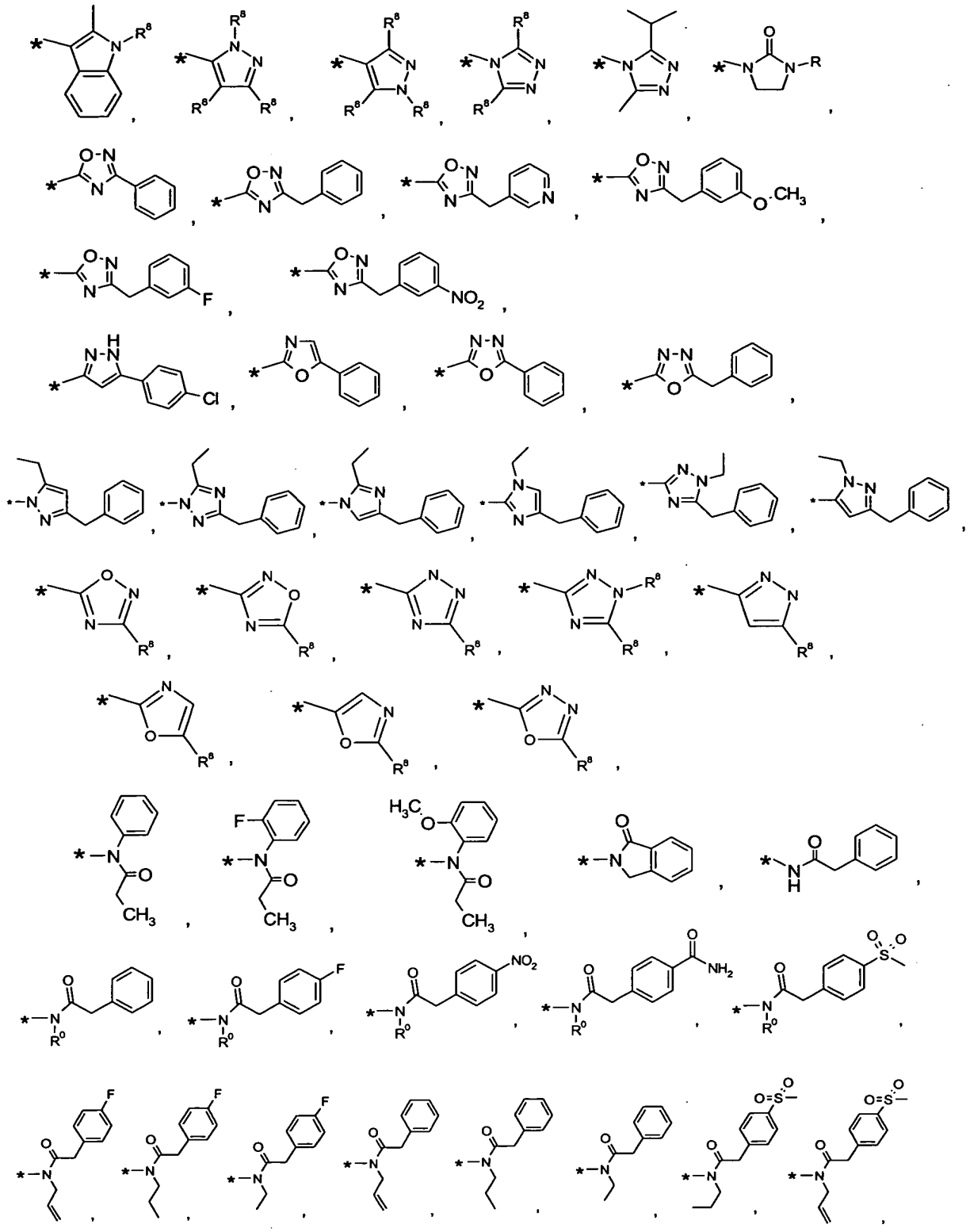
14. (Original) The compound of claim 1 wherein the A ring is selected from the group consisting of

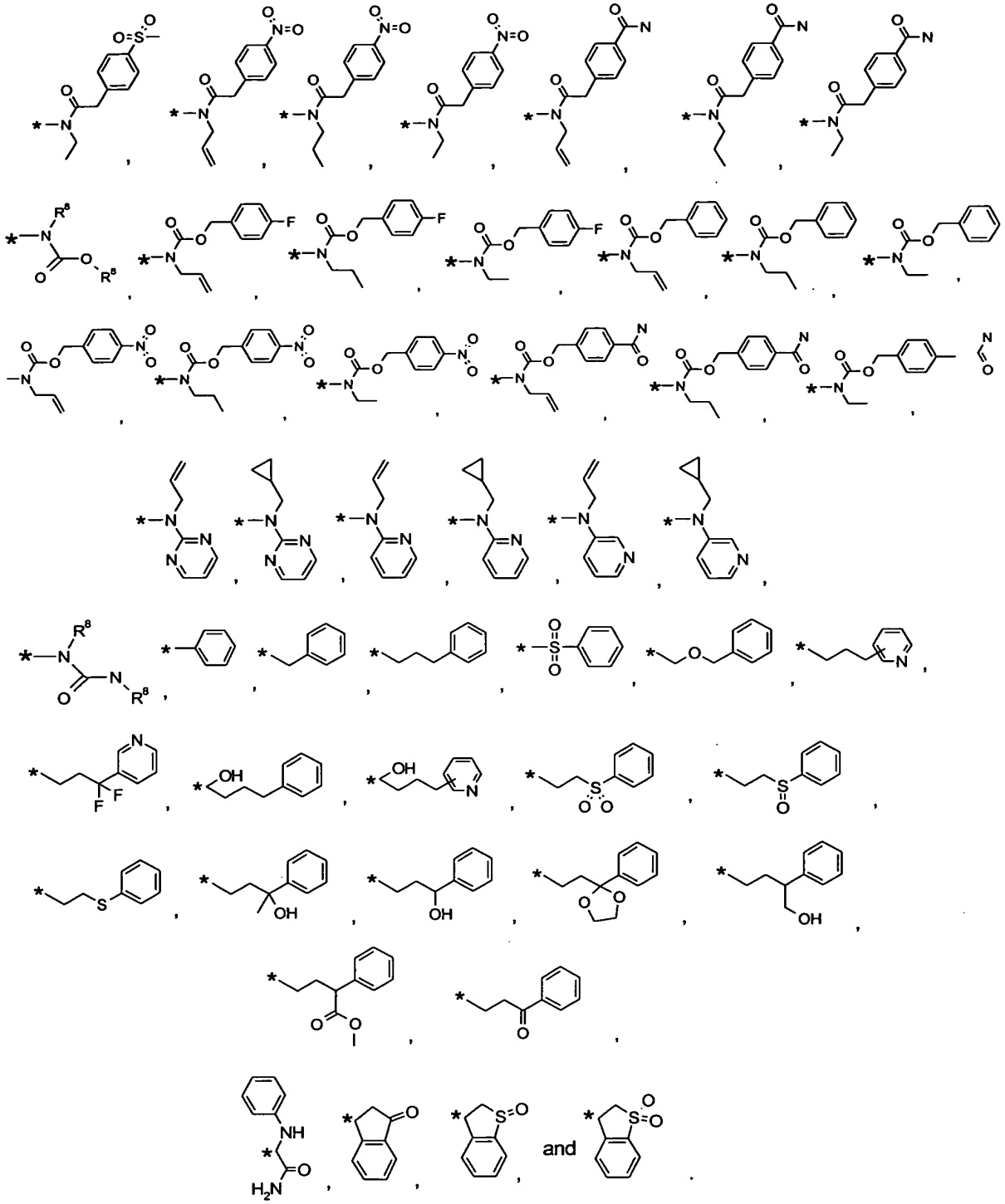


and

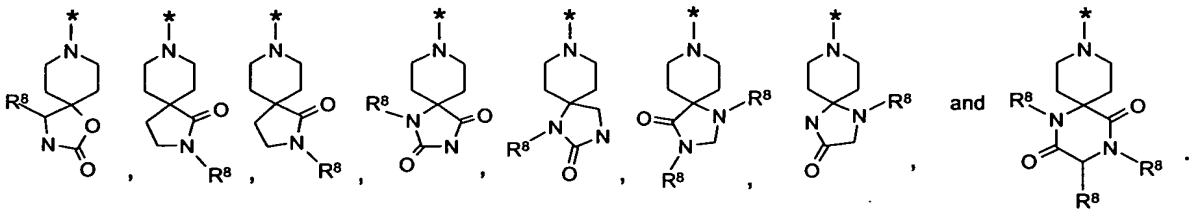
15. (Original) The compound of claim 12 wherein each R^2, with an asterisk indicating a point of substitution from Ring A, independently is selected from:





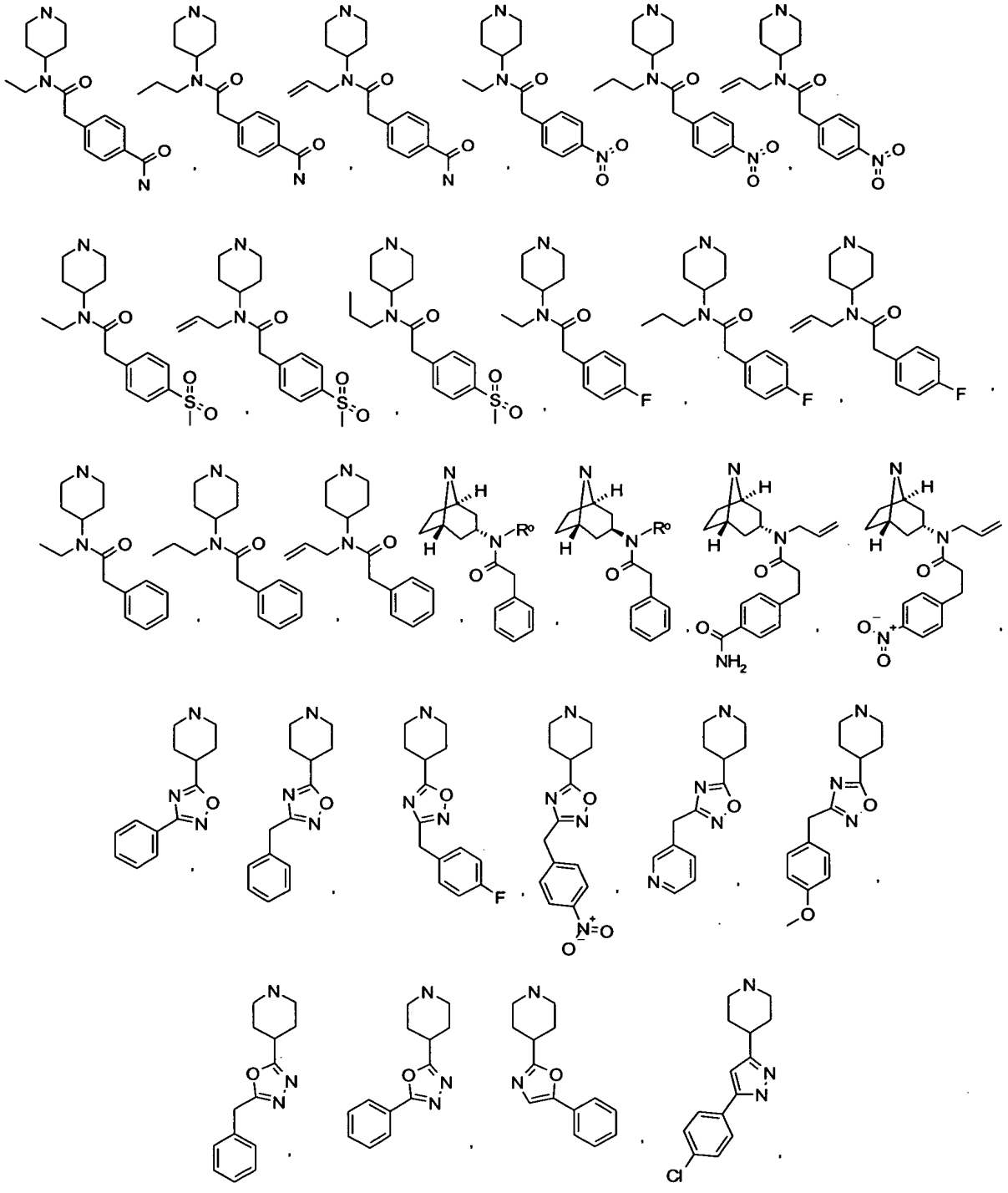


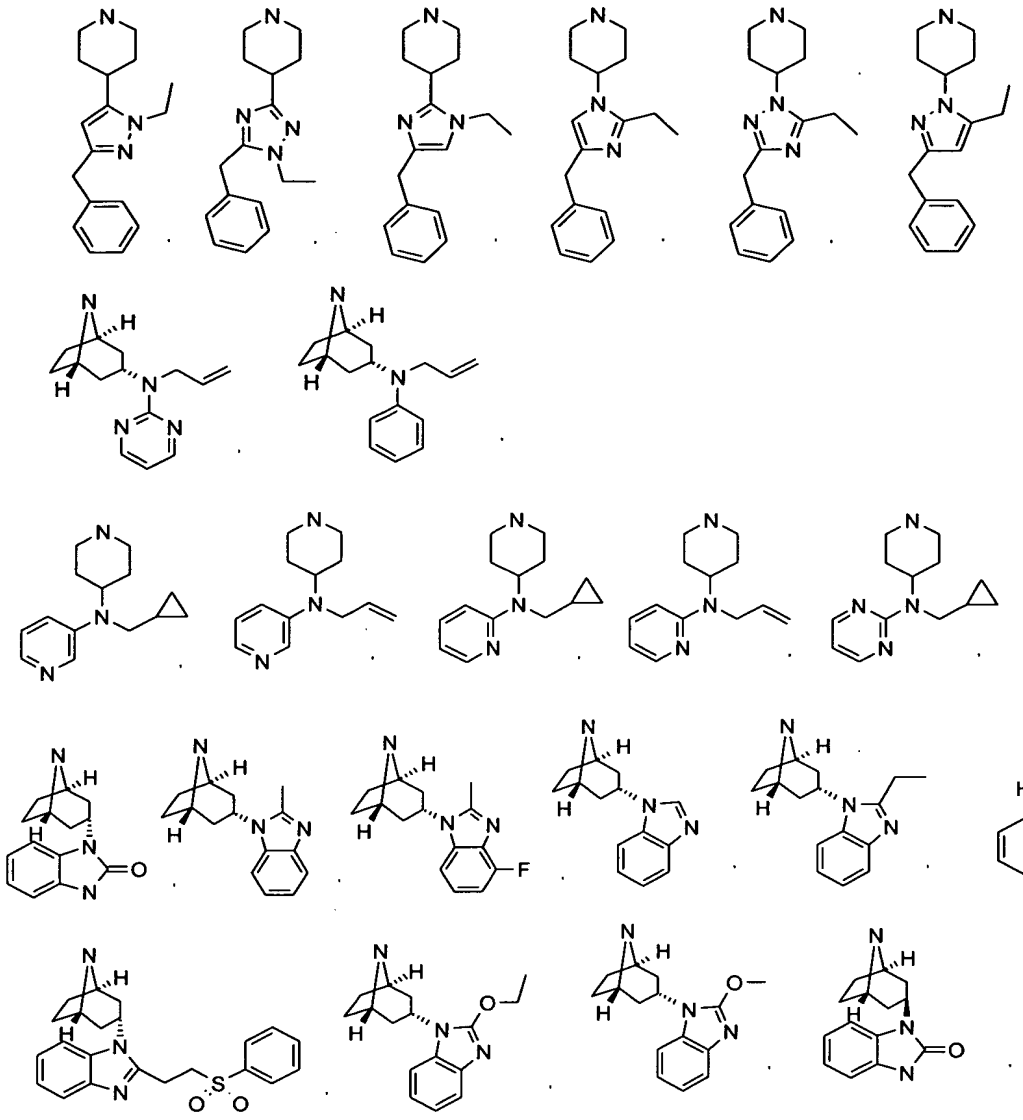
16. (Original) The compound of claim 1 wherein ring A, with two geminal R^2s, is selected from:

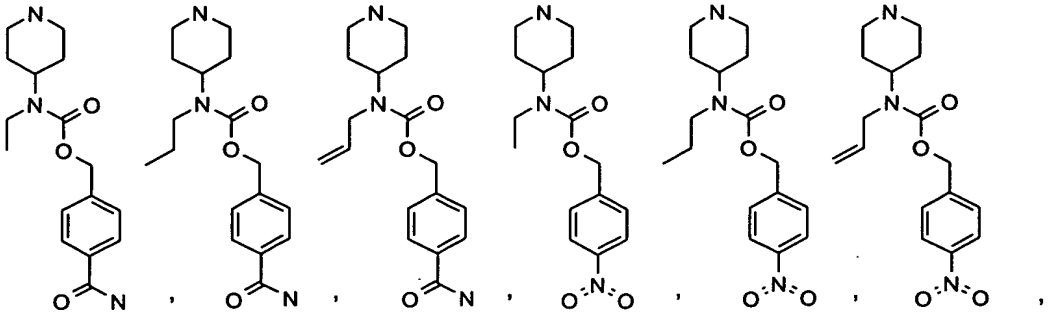


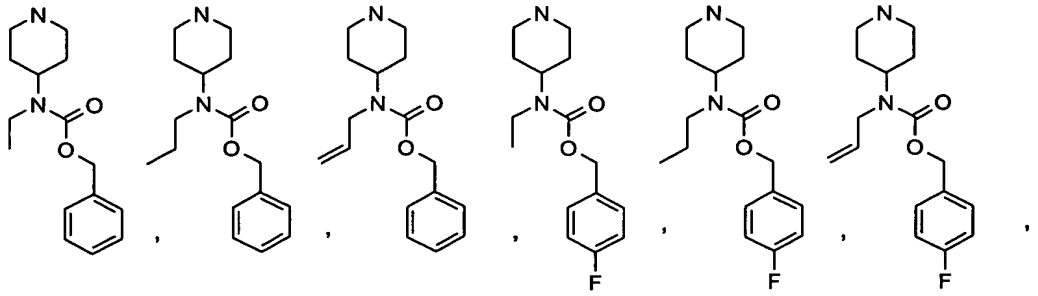
17. (Original) The compound of claim 1 wherein the A ring is tropane or piperidine, either optionally substituted with one or more R^2.

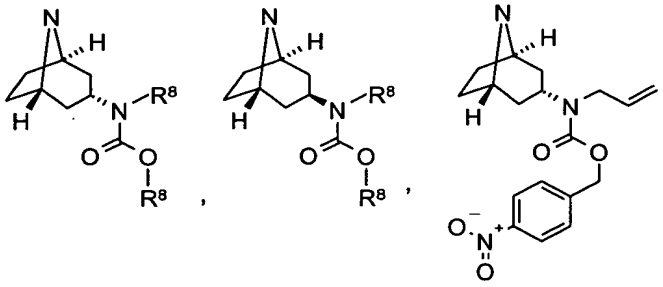
18. (Original) The compound of claim 15 wherein the A ring in combination with R^2 is

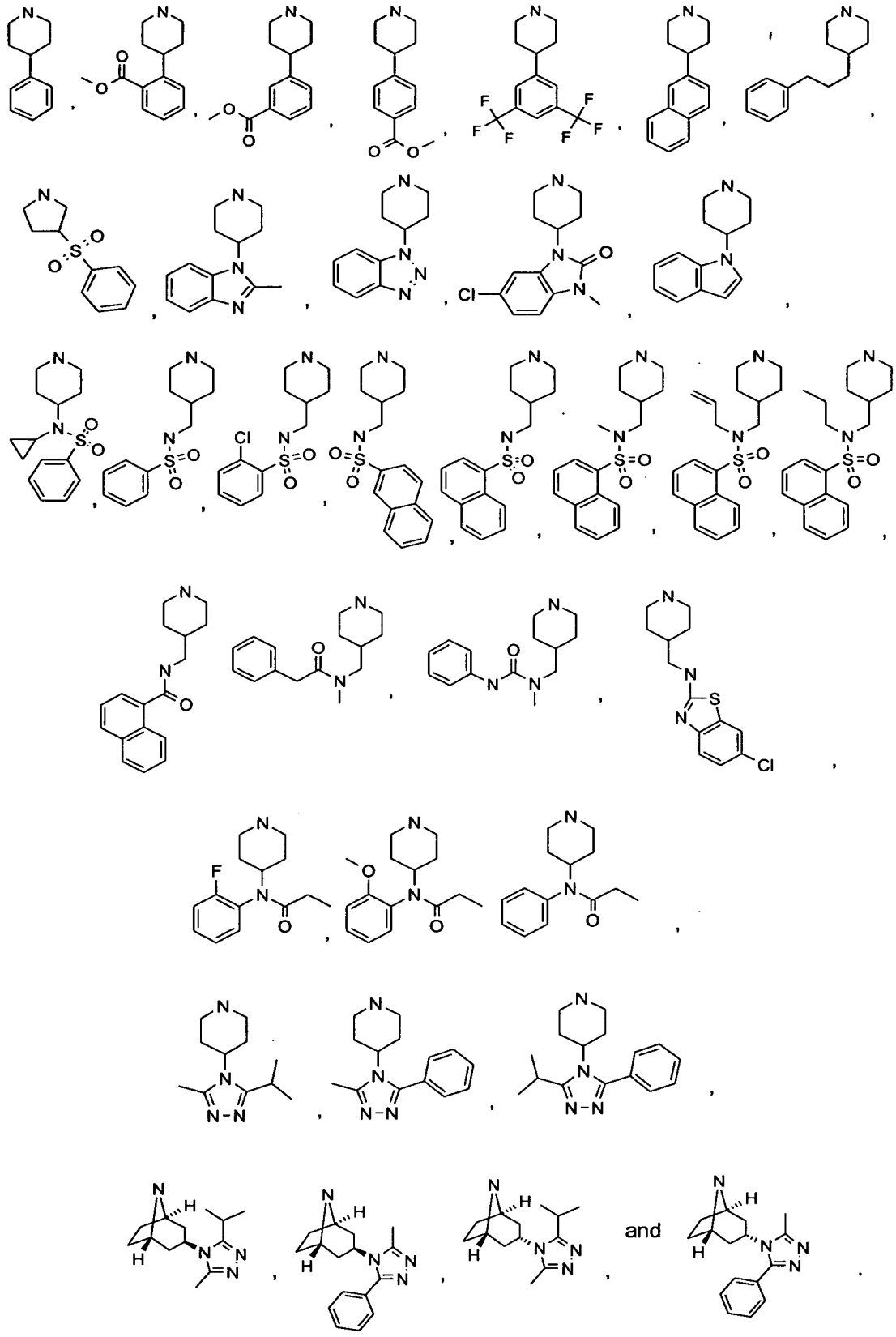












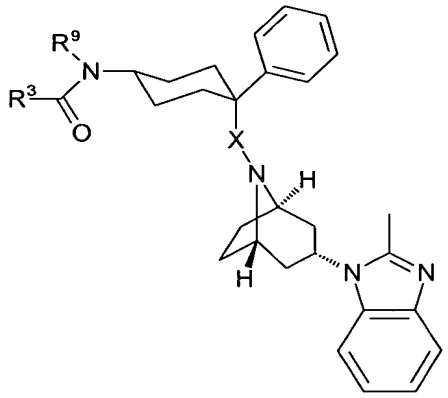
and

19. (Original) The compound of claim 1 wherein the A ring contains at least one additional nitrogen atom.

20. (Original) The compound of claim 17 wherein said A ring optionally is N-substituted.

21. (Original) The compound of claim 18 wherein the A ring is N-substituted with $-(CH_2)_a-(V_b-R+)$.

22. (Original) The compound of claim 1 wherein the compound of formula (I) is:



wherein X is a C_2-C_3 alkylene chain and R^3 and R^9 are each as defined in claim 1.

23. (Currently Amended) A method of treatment of a viral infection in a mammal comprising administering to said mammal an antiviral effective amount of a compound according to ~~claims 1-20~~ claim 1.

24. (Currently Amended) A method according to claim ~~21~~ 23 wherein the viral infection is an HIV infection.

25. (Currently Amended) A method of treatment of a bacterial infection in a mammal comprising administering to said mammal an effective amount of a compound according to ~~claims 1-20~~ claim 1.

26. (Currently Amended) A method according to claim ~~23~~ 25 wherein the bacterium is *Yersinia pestis*.

27. (Currently Amended) A method of treatment of multiple sclerosis, rheumatoid arthritis, autoimmune diabetes, chronic implant rejection, asthma, rheumatoid arthritis, Crohns Disease, inflammatory bowel disease, chronic inflammatory disease, glomerular disease, nephrotoxic serum nephritis, kidney disease, Alzheimer's Disease , autoimmune encephalomyelitis, arterial thrombosis, allergic rhinitis, arteriosclerosis, Sjogren's syndrome ~~(dermatomyositis)~~, systemic lupus erythematosus, graft rejection, cancers with leukocyte infiltration of the skin or organs, infectious disorders including bubonic and pneumonic plague, human papilloma virus infection, prostate cancer, wound healing, amyotrophic lateral sclerosis and immune mediated disorders in a mammal comprising administering to said mammal a pharmceutically effective amount of a compound according to ~~claims 1-20~~ claim 1.

28. (Currently Amended) A compound according to ~~claims 1-20~~ claim 1 for use in medical therapy.

29. (Cancelled).

30. (Cancelled).

31. (Cancelled).

32. (Cancelled).

33. (Cancelled).

34. (Currently Amended) A pharmaceutical composition comprising a pharmaceutically effective amount of a compound according to ~~claims 1-20~~ claim 1 together with a pharmaceutically acceptable carrier.

35. (Currently Amended) The pharmaceutical composition according to claim ~~32~~ 34 in the form of a tablet or capsule.

36. (Currently Amended) The pharmaceutical composition according to claim ~~32~~ 34 in the form of a liquid.

37. (Currently Amended) A method of treatment of a viral infection in a mammal comprising administering to said mammal a composition comprising a compound according to ~~claims 1-20~~ claim 1 and another therapeutic agent.

38. (Currently Amended) The method according to claim ~~35~~ 37, wherein said composition comprises another therapeutic agent selected from the group consisting of (1-alpha, 2-beta, 3-alpha)-9-[2,3-bis(hydroxymethyl)cyclobutyl]guanine [(-)BHCG, SQ-34514, lobucavir], 9-[(2R,3R,4S)-3,4-bis(hydroxymethyl)-2-oxetanosyl]adenine (oxetanocin-G), acyclic nucleosides, acyclovir, valaciclovir, famciclovir, ganciclovir, penciclovir, acyclic nucleoside phosphonates, (S)-1-(3-hydroxy-2-phosphonyl-methoxypropyl)cytosine (HPMPC), [[[2-(6-amino-9H-purin-9-yl)ethoxy]methyl]phosphinylidene] bis(oxymethylene)-2,2-dimethylpropanoic acid (bis-POM PMEA, adefovir dipivoxil), [[(1R)-2-(6-amino-9H-purin-9-yl)-1-methylethoxy]methyl]phosphonic acid (tenofovir), (R)-[[2-(6-Amino-9H-purin-9-yl)-1-methylethoxy]methyl]phosphonic acid bis-(isopropoxycarbonyloxymethyl)ester (bis-POC-PMPA), ribonucleotide reductase inhibitors, 2-acetylpyridine 5-[(2-chloroanilino)thiocarbonyl) thiocarbonohydrazone and hydroxyurea, nucleoside reverse transcriptase inhibitors, 3'-azido-3'-deoxythymidine (AZT, zidovudine), 2',3'-dideoxycytidine (ddC, zalcitabine), 2',3'-dideoxyadenosine, 2',3'-dideoxyinosine (ddI, didanosine), 2',3'-didehydrothymidine (d4T, stavudine), (-)-beta-D-2,6-diaminopurine dioxolane (DAPD), 3'-azido-2',3'-dideoxythymidine-5'-H-

phosphophonate (phosphonovir), 2'-deoxy-5-iodo-uridine (idoxuridine), (-)-cis-1-(2-hydroxymethyl)-1,3-oxathiolane 5-yl)-cytosine (lamivudine), cis-1-(2-(hydroxymethyl)-1,3-oxathiolan-5-yl)-5-fluorocytosine (FTC), 3'-deoxy-3'-fluorothymidine, 5-chloro-2',3'-dideoxy-3'-fluorouridine, (-)-cis-4-[2-amino-6-(cyclopropylamino)-9H-purin-9-yl]-2-cyclopentene-1-methanol (abacavir), 9-[4-hydroxy-2-(hydroxymethyl)but-1-yl]-guanine (H2G), ABT-606 (2HM-H2G) ribavirin, protease inhibitors, indinavir, ritonavir, nelfinavir, amprenavir, saquinavir, fosamprenavir, (R)-N-tert-butyl-3-[(2S,3S)-2-hydroxy-3-N-[(R)-2-N-(isoquinolin-5-yloxyacetyl)amino-3-methylthiopropanoyl]amino-4-phenylbutanoyl]-5,5- dimethyl-1,3-thiazolidine-4-carboxamide (KNI-272), 4R-(4alpha,5alpha,6beta)]-1,3-bis[(3-aminophenyl)methyl]hexahydro-5,6-dihydroxy-4,7-bis(phenylmethyl)-2H-1,3-diazepin-2-one dimethanesulfonate (mozenavir), 3-[1-[3-[2-(5-trifluoromethylpyridinyl)-sulfonylamino]phenyl]propyl]-4- hydroxy-6alpha-phenethyl-6beta-propyl-5,6-dihydro-2-pyranone (tipranavir), N'-[2(S)-Hydroxy-3(S)-[N-(methoxycarbonyl)-l-tert-leucylamino]-4- phenylbutyl-N alpha-(methoxycarbonyl)-N'-[4-(2-pyridyl)benzyl]-L- tert-leucylhydrazide (BMS-232632), 3-(2(S)-Hydroxy-3(S)-(3-hydroxy-2-methylbenzamido)-4-phenylbutanoyl)-5,5-dimethyl-N-(2-methylbenzyl)thiazolidine-4(R)-carboxamide (AG-1776), N-(2(R)-hydroxy-1(S)-indanyl)-2(R)-phenyl-methyl-4(S)-hydroxy-5-(1-(1-(4-benzo[b]furanylmethyl)-2(S)-N'-(tert-butylcarboxamido)piperazinyl)pentanamide (MK-944A), interferons, α-interferon, renal excretion inhibitors, probenecid, nucleoside transport inhibitors, dipyridamole, pentoxifylline, N-acetylcysteine (NAC), Procysteine, α -trichosanthin, phosphonoformic acid, immunomodulators, interleukin II, thymosin, granulocyte macrophage colony stimulating factors, erythropoetin, soluble CD_4 and genetically engineered derivatives thereof, non-nucleoside reverse transcriptase inhibitors (NNRTIs), nevirapine (BI-RG-587), alpha-((2-acetyl-5-methylphenyl)amino)-2,6-dichloro-benzeneacetamide (loviride), 1-[3-(isopropylamino)-2-pyridyl]-4-[5-(methanesulfonamido)-1H-indol-2-ylcarbonyl]piperazine monomethanesulfonate (delavirdine), (10R, 11S, 12S)-12-hydroxy-6, 6, 10, 11-tetramethyl-4-propyl-11,12-dihydro-2H, 6H, 10H-benzo(1, 2-b:3, 4-b':5, 6-b")tripyran-2-one ((+) calanolide A), (4S)-6-Chloro-4-[1E)-cyclopropylethenyl)-3,4- dihydro-4-(trifluoromethyl)-2(1H)-quinazolinone

(DPC-083), (S)-6-chloro-4-(cyclopropylethynyl)-1,4-dihydro-4-(trifluoromethyl)-2H-3,1-benzoxazin-2-one (efavirenz, DMP 266), 1-(ethoxymethyl)-5-(1-methylethyl)-6-(phenylmethyl)-2,4(1H,3H)-pyrimidinedione (MKC-442), and 5-(3,5-dichlorophenyl)thio-4-isopropyl-1-(4-pyridyl)methyl-1H-imidazol-2-ylmethyl carbamate (capravirine), glycoprotein 120 antagonists, PRO-2000, PRO-542, 1,4-bis[3-[(2, 4- dichlorophenyl)carbonylamino]-2-oxo-5,8-disodiumsulfanyl]naphthalyl-2, 5-dimethoxyphenyl-1, 4-dihydrazone (FP-21399), cytokine antagonists, reticulose (Product-R), 1,1'-azobis-formamide (ADA), 1,11-(1,4-phenylenebis(methylene))bis-1,4,8,11-tetraazacyclotetradecane octahydrochloride (AMD-3100), integrase inhibitors, and fusion inhibitors.

39. (Currently Amended) A method of treatment of a viral infection in a mammal comprising administering to said mammal a composition comprising a compound according to ~~claims 1-20~~ claim 1 and ritonavir.